

REMARKS

By the foregoing Amendment, Claims 1, 10, 11, 24 and 27 are amended. Entry of the Amendment, and favorable consideration thereof is earnestly requested.

All claims stand rejected either under 35 U.S.C. §102(e) as being anticipated by, or under 35 U.S.C. §103(a) as being unpatentable over, U.S. Published Patent Application No. US 2001/0054034 A1 to Arning et al. (hereinafter "Arning") either alone or in combination with U.S. Published Patent Application No. US 2001/0007984 A1 to Fattah et al. (hereinafter "Fattah"). Applicant respectfully requests that the Examiner reconsider these rejections in view of the above Amendments and the following Remarks.

The present invention is directed to an object model system for multidimensional applications which is comprehensive and intuitively structured, which is minimally inflatable and is expanded in memory only to the extent that a developer or user requests, which is capable of preserving application state without wasting large amounts of the web server's resources, and which provides shortcut methods to directly generate web content. To these ends, the present invention is provided with a very precise structure and operation, as discussed in more detail below with respect to the specific claim limitations.

Arning, however, is directed to a completely different system. Arning is directed to technique for accessing a subject multi-dimensional database stored on a data store connected to the computer, in which an index is created for the subject multi-dimensional database. The index comprises another multi-dimensional database, and the subject multi-dimensional database is accessed using the index.

While Arning and the present invention both relate to multi-dimensional databases, the structure and operation of the systems are completely different. More specifically, Claims 1 and 10 of the present application (which are directed to the object model employed by the system of the present invention) both require, among other elements, (i) at least one cube object stored on each of the at least one dataser, each of the at least one cube object comprising at least one saved view of data; and (ii) at least one dimension object stored on each of the at least one dataser, each of the at least one dimension object comprising at least one saved subset of elements. Thus, Claims 1 and 10 of the present invention require that each dataser have stored thereon both at least one cube object comprising at least one saved view of data and at least one dimension object comprising at least one saved subset of elements.

Arning does not disclose, teach or suggest this. Rather, Arning discloses two separate multi-dimensional databases (index multi-dimensional database 134 and subject multi-dimensional database 136). Although not explicitly stated, it appears that each of these databases 134, 136 employs a standard object model, having stored thereon two separate sets of cube objects. There is no disclosure, teaching or suggestion that either of databases 134, 136 employs the novel object model of the present invention (i.e., where at least one of the databases has stored thereon both at least one cube object comprising at least one saved view of data and at least one dimension object comprising at least one saved subset of elements).

The Examiner appears to recognize that Arning discloses two sets of cube objects. However, according to the Examiner, "A cube object is a three dimensional object, therefore a cube object is a dimension object." The Examiner then goes on to equate the first cube object of Arning with the cube object required by Claims 1 and 10, and to equate the second cube object of Arning with the dimension object required by Claims 1 and 10.

Applicant respectfully disagrees with the Examiner's statement that "A cube object is a three dimensional object, therefore a cube object is a dimension object." While it may be true that a cube object is a dimensional object (in that it is

at least three dimensional), a cube object is not a “dimension object” as the term “dimension object” is understood by those skilled in the art. Rather, dimension objects are objects which define relationships between data in other objects (such as cube objects).

In order to clarify this distinction, Applicant has amended Claims 1 and 10 to specifically require that the dimension object define relationships between data in the at least one cube object. Applicant respectfully submits there is clearly no disclosure, teaching or suggestion in Arning of this limitation.

Moreover, it would not have been obvious for one skilled in the art to modify Arning to arrive at the present invention. Arning is concerned with solving a completely different (and unrelated) problem than is the object model aspect of the present invention. As discussed in detail in the present application, Claims 1 and 10 are directed to a novel object model, the purpose and benefit of which is to provide a much more intuitive technique from a programming perspective as compared to employing low-level API function calls. Arning, on the other hand is concerned with facilitating user (as opposed to programmer) interaction with the system. Arning is not at all concerned with providing an object model which is more intuitive from a programming perspective. In fact, Arning specifically discloses that “[t]he Index System uses standard application programming

interfaces (APIs) provided with a multi-dimensional database system” (See Arning , page 7, paragraph [0092]). Thus, there is no motivation provided by Arning to use other than a “standard” object model and/or other than “standard” API function calls in connection with either of databases 134, 136.

Moreover, Claims 11, 24 and 27 of the present application (which are directed to the adaptive instantiation and inflation technique employed by the system of the present invention) all require, among other elements, object model software: (i) which instantiates and inflates a predefined group of specified objects up-front a first time the database is accessed, and (ii) which instantiates and inflates nonspecified objects which are not included in the predefined group of specified objects on demand as each of the nonspecified objects is accessed. Thus, Claims 11, 24 and 27 of the present invention require a two-stage, adaptive instantiation and inflation. Claims 11, 24 and 27 have been amended to even further highlight this novel technique by clarifying certain terms and relationships.

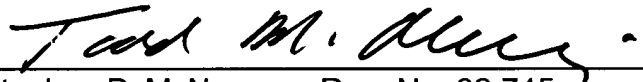
As is recognized by the Examiner, Arning does not disclose, teach or suggest this. Arning does not even specifically address when instantiating and inflating of the databases is to occur. Applicants further respectfully submit that Fattah similarly does not disclose, teach or suggest the two-stage, adaptive instantiation and inflation technique as claimed.

Rather, Fattah discloses that in response to a service request, a service object is instantiated, a business object is instantiated, and that the instantiated service object is associated with the instantiated business object. This instantiation and inflation technique is completely different than the novel technique claimed, and is in fact one of the prior art techniques discussed in the background of the current application itself. More specifically, the instantiation technique of Fattah is simply driven by the user interface. Although Fattah discloses that there are two objects which are being instantiated, they are both instantiated in response to a service request. In Fattah, there is simply no disclosure, teaching or suggestion of a predefined group of specified objects which are instantiated up-front a first time the database is accessed. Rather, specific service objects and business objects are instantiated in response to a service request (i.e., on demand as they are accessed). Thus, although there are two objects which are being instantiated, they are instantiated in a single-stage process.

The claimed two-stage, adaptive instantiation and inflation technique is not disclosed, taught or suggested in any way by Fattah, nor is there any motivation provided in Fattah to modify the device disclosed therein to provide such a two-stage, adaptive instantiation and inflation technique.

For the foregoing reasons, Applicant respectfully submits that all pending claims, namely Claims 1-43, are patentable over the references of record, and earnestly solicits allowance of the same.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Todd M. Oberdick", is written over a horizontal line.

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